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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LIANG, REGINA

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 04/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,692

Applicant(s)

DEROCHER, MICHAEL D.

Examiner

Regina Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 32-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1- 8, 10, 13-16, 18, 22-27 is/are rejected.
- 7) ☒ Claim(s) 9,11,12,17,19-21 and 28-31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-31, drawn to a device used to accept an operator input including a first to third layers, classified in class 178, subclass 18.01.
 - II. Claims 32-39, drawn to an operation of a touch pad for controlling the position of a cursor on a computer display, classified in class 345, subclass 173.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as the touch pad controlling the position of a cursor on a computer display. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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6. During a telephone conversation with Jeff D. Limon on 2/12/03 a provisional election was made without traverse to prosecute the invention of I, claims 1-31. Affirmation of this election must be made by applicant in replying to this Office action. Claims 32-39 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4-6, 8, 10, 13-16, 18, 22-25, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al (US. PAT. NO. 5,495,077 hereinafter Miller) in view of Hulick et al (US. PAT. NO. 6,462,941 hereinafter Hulick) and Yabe et al (US. PAT. NO. 5,132,681 hereinafter Yabe).

As to claims 1, 18, Figs. 1A-1D of Miller discloses a touch-sensitive device (touchpad) used to accept an operator input to a computer device, comprising a first layer (24) which includes a cover, a second layer (20) which includes a plurality of surfaces being a capacitive surface and being constructed using a conductive material. Nakajima does not disclose the touchpad is a translucent touchpad and having a third layer including a light-emitting material. However, Hulick teaches a transparent digitizer input pad (touchpad) having a backlighting layer. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the touchpad device of Miller to have a translucent touchpad and

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a backlighting layer as taught by Hulick so as to facilitate usage in poor lighting conditions and even under well-lit conditions, it may be more visually appealing, gratifying, and stimulating a backlight the digitizer input area (col. 2, lines 25-29 of Hulick). Miller as modified by Hulick does not disclose the backlighting layer that generates light in response to the operator input. However, Yabe teaches a touch panel device having a backlight, the backlight is ON in response to the operator input (the touch screen is touched by the operator, see col. 6, lines 55-59, col. 6, lines 37-38). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the backlight of Miller as modified by Hulick to generate light in response to the operator input as taught by Yabe so as to provide a power saving and to prolong the life of the device.

As to claims 2, 6, 22-24, Miller teaches the operator input is one of a user's thumb positioned at a location on the touchpad, and operator input is used to control an aspect (cursor movement) of a computer display controlled by the computing device (col. 20, lines 38-51).

As to claims 4, 27, Miller teaches the touchpad "may be placed in a convenient location, e.g., below the "space bar" key in a portable computer" (col. 20, lines 40-41), so Miller's touchpad is used to control the aspect of the computer display is conveyed through a wire line link between the touchpad device and the computing device as claimed.

As to claims 5, 25, Miller teaches the plurality of surfaces function by responding to changes in capacitance between adjacent ones of the plurality of surfaces (col. 8, lines 53-64).

As to claim 8, Hulick teaches the touchpad is transparent touchpad so the plurality of surfaces is constructed using a material which is transparent.

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As to claim 10, Miller teaches the computing device launches a software application that runs on the computing device in response to the user input.

As to claims 13-15, Hulick teaches the light-emitting material of the backlighting layer is an electroluminescent material or a LED, and the first, second third layers are substantially two-dimensional.

As to claim 16, Hulick teaches the operator input is a character entered.

9. Claims 3, 7 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller, Hulick and Yabe as applied to claims 1 and 18 above, and further in view of Chan et al (US. PAT. NO. 6,061,051 hereinafter Chan).

As to claims 3 and 26, Miller as modified by Hulick and Yabe does not disclose the operator input is conveyed by way of a wireless interface between the computing device and the touchpad. However, Chan teaches to use a wireless interface for conveying signals between the computing device and the touchpad (col. 11, lines 18-24). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller as modified by Hulick and Yabe to have the operator input which is conveyed by way of a wireless interface between the computing device and the touchpad as taught by Chan since a wireless connection provides the user with more freedom of motion and mobility without being limited by the constraints of a wired connection.

As to claim 7, Miller as modified by Hulick and Yabe does not disclose the sensor surfaces being resistive surfaces so that the plurality of surfaces function by responding to changes in resistance between adjacent ones of the plurality surface. However, Chan teaches it is

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well known in the art that a touchpad comprising a resistive touchpad so that the plurality of resistive surfaces function by responding to changes in resistance between adjacent ones of the plurality surface. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the touchpad of Miller as modified by Hulick and Yabe to have a resistive touchpad as taught by Chan so as to provide an alternative touchpad device for inputting coordinate signals to the computer system.

Allowable Subject Matter

10. Claims 9, 11, 12, 17, 19-21, 28-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Depew et al (US. PAT. NO. 6,215,476) teach a flat panel display with integrated electromagnetic pen digitizer.

Miyajima et al (US. PAT. NO. 6,518,958) teaches an electronic apparatus having plural entry switches.

Fujita et al (US. PAT. NO. 6,118,435) teaches a display unit with touch panel.

Orlich (US. PAT. NO. 5,560,696) teaches a method and apparatus for establishing an alignment grid or pattern.

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Helser (US. PAT. NO. 5,359,155) teaches an illumination apparatus for a digitizer tablet.